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Dated 25 February 2003

Patent Form 1/77

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01 FEB 2002

The Patent Office

1/77

04FEB02 E692862-8 D02890
P01/7700 0.00-0202424.8

Request for grant of a patent

(See the notes on the back of this form. You can also get an explanatory leaflet from the Patent Office to help you fill in this form)

The Patent Office

Cardiff Road
Newport
South Wales
NP9 1RH

1. Your reference

MJB07115GB

2. Patent application number

0202424.8

1 FEB 2002

3. Full name, address and postcode of the or of each applicant *(underline all surnames)*

Origgio Limited
Unit 3, The Maltings
Green Drift
Royston
Hertfordshire
SG8 5DY

Patents ADP number *(if you know it)*

8316663001

If the applicant is a corporate body, give the country/state of its incorporation

4. Title of the invention

PACKAGING CONTAINER AND METHOD

5. Name of your agent *(if you have one)*

Gill Jennings & Every

"Address for service" in the United Kingdom to which all correspondence should be sent *(including the postcode)*

Broadgate House
7 Eldon Street
London
EC2M 7LH

Patents ADP number *(if you know it)*

745002

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and *(if you know it)* the or each application number

Country	Priority application number *(if you know it)*	Date of filing *(day / month / year)*

7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

Number of earlier application	Date of filing *(day / month / year)*

8. Is a statement of inventorship and of right to grant of a patent required in support of this request? *(Answer 'Yes' if:*

a) any applicant named in part 3 is not an inventor, or
b) there is an inventor who is not named as an applicant, or
c) any named applicant is a corporate body.
See note (d))

YES

Patent Form 1/77

9. Enter the number of sheets for any of the following items you are filing with this form. Do not count copies of the same document

Continuation sheets of this form	-
Description	5
Claim(s)	-
Abstract	-
Drawing(s)	4

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Priority documents	-
Translations of priority documents	-
Statement of inventorship and right to grant of a patent *(Patents Form 7/77)*	-
Request for preliminary examination and search *(Patents Form 9/77)*	-
Request for substantive examination *(Patents Form 10/77)*	-
Any other documents *(please specify)*	NO -

11. For the applicant
Gill Jennings & Every

I/We request the grant of a patent on the basis of this application.

Signature [signature] Date 1 February 2002

12. Name and daytime telephone number of person to contact in the United Kingdom

BRUNNER, Michael John
020 7377 1377

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PACKAGING CONTAINER AND METHOD

The present invention relates to packaging containers and, more particularly, to a packaging container capable of providing enhanced information to a potential purchaser of the product contained within the packaging container.

The invention has particular utility in the consumer product area especially in the marketing and selling of CDs, DVDs, video cassettes, books and the like, but is not limited thereto.

There is often a need to provide significant enhanced information to potential buyers of CDs, DVDs and the like at the point of sale and this requirement is normally met by allowing potential purchasers to play an audio selection or sample of a CD or DVD before purchase. This involves the purchaser requesting the playing of a CD/DVD or the like from staff within the store and then putting on a headset to listen to parts of a selection of the tracks or other set of samples. However, this process obviously wastes time on the part of both the potential buyer and the sales staff and the initial installation of the necessary equipment to enable playback of samples is costly. Furthermore, of course, only a limited number of potential purchasers can use the equipment at any one time.

According to a first aspect of the present invention there is provided therefore a packaging container having a housing and, disposed therein,

an audio integrated circuit (or 'voice chip') capable of converting digital audio data into electrical audio signals;

a memory connected to or integral with the audio integrated circuit for providing digital audio data to the audio integrated circuit;

an input connected to the memory through which digital audio data can be uploaded to the memory;

a transducer for receiving electrical audio signals from the audio integrated circuit and reproducing corresponding sound signals therefrom;

a battery connected to power the audio integrated circuit and the transducer; and

a manually actuatable switch for causing the audio integrated circuit to operate to receive digital audio data from the replaceable memory and to provide electrical audio signals to the transducer for reproduction of audio material.

By loading into the memory, which may be a random access memory (RAM), flash memory, or the like or which may be a one-time programmable memory such as an EPROM and which may be part of the voice chip, digital data corresponding to samples of one or more tracks of a CD, DVD or the like, and enabling them to be listened-to by a potential purchaser simply by manual actuation of the switch on the container, enhanced information can be provided to a potential purchaser.

The packaging containers according to the invention are not limited to CD, DVD, etc., packaging containers but may comprise containers of almost any description and type. For example, packaging may be applied to books and the digital data held in the replaceable memory may be passages from the book or else descriptive material related to its contents. Similarly, instructions for the use of or other information about other consumer products may be provided, or even instructions for the use of medicines and the like.

However, particularly in the consumer product area and, more particularly, the entertainment area, there exists a desire on the part of potential purchasers to sample information before making a purchase and the conventional containers for CDs, DVDs and the like already contains sufficient unused space to house the various components, making it a relatively simple procedure to fit the required components without major redesign of the conventional packaging container.

Having electronic components such as those mentioned above, particularly an integrated circuit chip, may also allow for RF ID tagging of packaging containers to be added relatively simply.

The invention also includes a method of packaging a consumer product, the method comprising uploading digital data to the replaceable memory of a packaging container according to the first aspect of the invention through the input;

inserting the product into the packaging container; and thereafter

sealing the container.

In the case of a flexible manufacturing process in which different versions of the product or different products themselves can be inserted in the same packaging, a data base of digital data samples may be maintained and synchronised with the process for inserting the product into the packaging containers in order to associate appropriate sound samples with corresponding products. This is particularly useful in the case of

CD or DVD production and the like where the manufacturing process involves the insertion, over time, of different batches of CDs/DVDs by different artists so that sound samples corresponding to tracks on respective CDs/DVDs can be properly associated with the respective CDs/DVDs, etc.

The invention has application in many areas, as mentioned above, but a few of which are audio CDs, DVDs, video cassettes and similar entertainment products, computer software, books, food packaging, medicine packaging and the like.

One example of a packaging container according to the present invention and a method of packaging a product will now be described with reference to the accompanying drawings in which:-

Fig 1 is a block diagram of components to be incorporated in a packaging container;

Figs 2A to C are various views of a packaging container for CDs or DVDs;

Fig 3 is a block diagram illustrating the individual steps of manufacturing and packaging a CD/DVD; and

Fig 4 is a chart illustrating the type of content that may be stored in the replaceable memory according to the invention, relating to particular applications.

In order to provide sound bytes to a potential purchaser of a CD or DVD, the various components shown in Fig 1 are assembled within the packaging container shown in Figures 2A to C.

The components shown in Fig 1 include a so-called "voice chip" 10 or audio integrated circuit in the form of a digital voice synthesiser chip, to which is connected flash memory 11 and an amplifier 12. These three components, in particular, are preferably provided in a single application specific integrated circuit, ASIC 40 (see figure 3), but may be discreet components if desired. Power is supplied to the voice chip 10 and amplifier 12 from button cell batteries 13 and the amplifier 12 feeds a small speaker 14, the voice chip and amplifier being actuated by a switch 15. An input 16 having appropriate terminals is provided to allow uploading of digital data into the memory 11. If desired and as shown, an RF transceiver 17 (in the form of an RFID transceiver) may be incorporated (either as another component integral with the voive chip or as a separate component) to provide for security coding of the CD or DVD, security data being uploaded/downloaded at the time of manufacture and/or at the

point of sale. The incorporation of an RF transceiver 17 may also allow removal of the need for the input 16, voice data being uploaded through the same transceiver.

All of these components can be located within free space which is available within the CD/DVD container or case 20 shown in Figure 2A to C. Within the conventional CD/DVD container or case 20 there is sufficient unused volume to allow location of the individual components within, for example, the spine area 21 and the adjacent areas 22 of the support tray 23 immediately surrounding the CD/DVD. These areas are provided, behind the internal CD support tray 23 which is located internally of the CD/DVD case as a separate component, between the support tray and the rear wall or bottom part 24 of the case, as shown in Figures 2A to C. As can be seen in Figure 2A, the operating switch 15, in the form of a button, can be provided on the front of the spine which is exposed at the front of the case, located in a slot 25 formed in the front face of the spine 21 of the internal support tray 23. The remaining components can be disposed elsewhere within the spine 21 and the boarder areas 22 as desired.

One method of packaging consumer products, in the form of CDs/DVDs, is shown in block diagram form in Figure 3. Here can be seen all the various steps involved in the production and sale of a CD/DVD, including, within the recording studio, production of the music by an artist 31 and creation of a CD/DVD master 32. From the CD/DVD master 32 individual CDs/DVDs can be "burned" in a conventional process (not shown) and a magazine of finished CDs/DVDs 33 can be produced, CDs/DVDs then being picked one-by-one from the magazine at a suitable insertion station 44 for insertion into the CD/DVD case 20.

Elsewhere, voice chips 20 are manufactured at a chip manufacturing facility 40, assembled into an electronics package 41, and then loaded (at 42) onto CD//DVD support trays (or 'jewel cases') 23 which have been prior manufactured, together with other CD/DVD case parts. The CD/DVD support trays 23 are supplied, in parallel with the other CD/DVD case parts, to a pre-insertion station 45 and sound bytes are uploaded, through contacts 16 or through the RF transceiver (not shown in Figure 3), as indicated at 50, appropriately sequenced with the loading of particular CDs/DVDs, having been previously selected and stored on a suitable computer system 51. Suitable ID data may also be uploaded in the same or (as shown) as separate operation 52. A magazine 46 of support trays 23 is then assembled and from the magazine, at a later step, the support trays 23 are then inserted into outer casing parts

24, 26 along with the usual "sleeve notes" and the CD/DVD 33 at the insertion station 44. The usual final packaging or wrapping is then applied at 60 before distribution to retail outlets 61.

It can be appreciated from Figure 3 that there is minimum disruption to conventional CD production processes, requiring only the addition of a suitable computer for example to hold a database of the sound bytes corresponding with particular CDs/DVDs and the addition of contacts or the like to enable upload of the sound bytes through the input 16 into the replaceable memory 11.

Figure 4 illustrates various examples of applications to which the invention is applicable, together with the types of data which might be used for reproduction in each case.

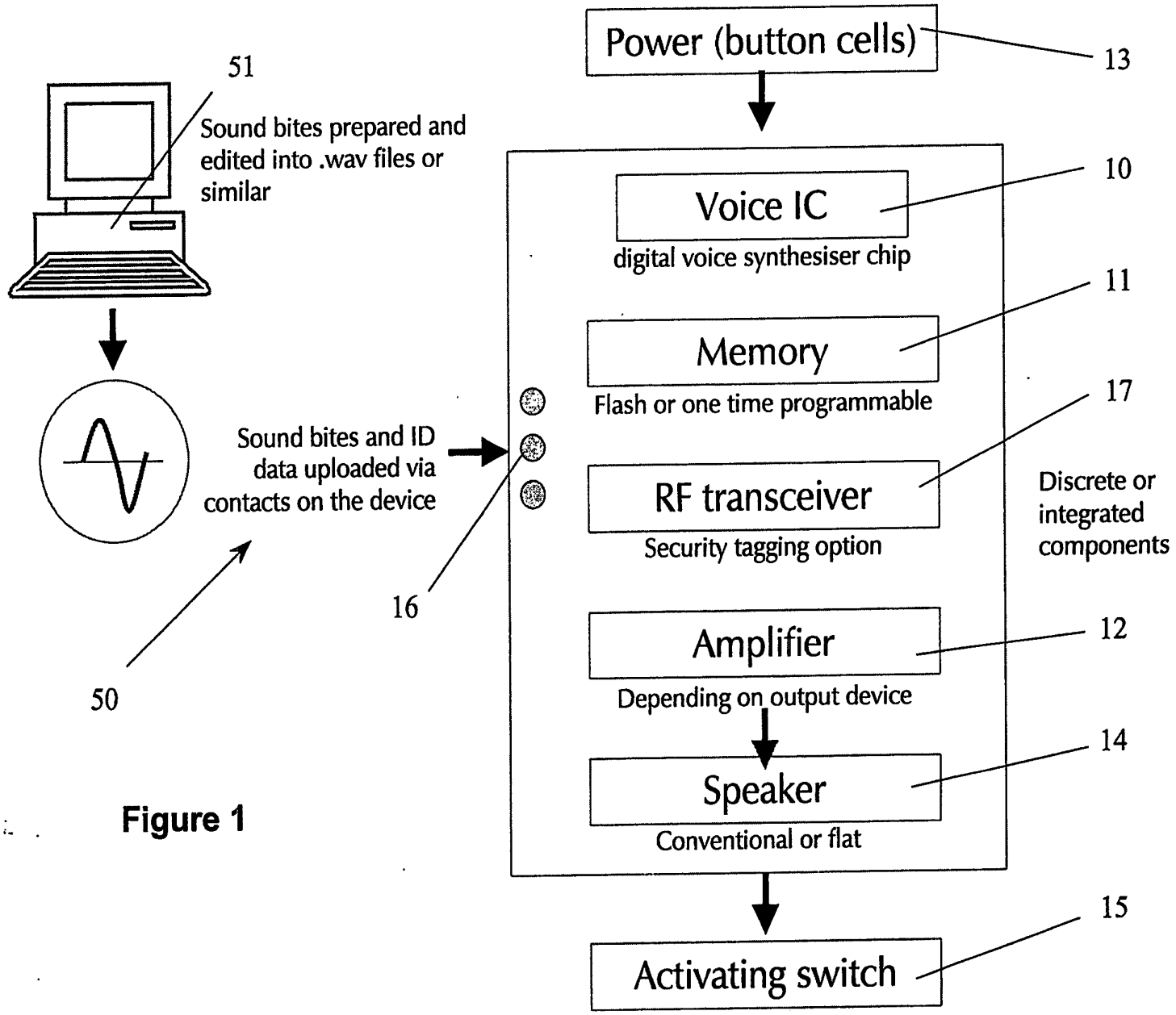
Power (button cells)
13
51
Sound bites prepared and edited into .wav files or similar
10
Voice IC
digital voice synthesiser chip
11
Memory
Flash or one time programmable
17
RF transceiver
Security tagging option
Discrete or integrated components
Sound bites and ID data uploaded via contacts on the device
16
12
Amplifier
Depending on output device
14
Speaker
Conventional or flat
15
Activating switch
50

Figure 1

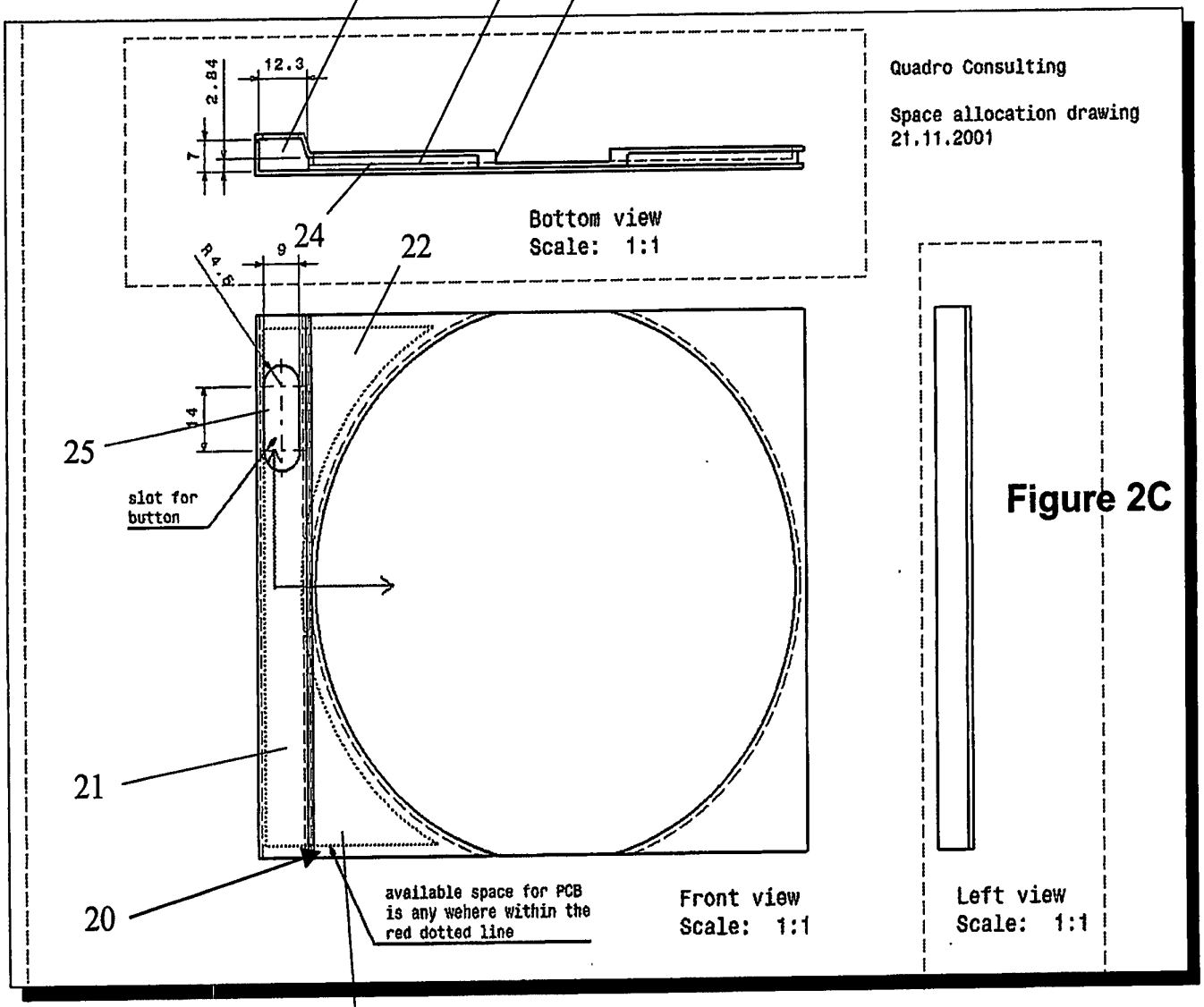

Figure 2B

Figure 2C

Figure 2A

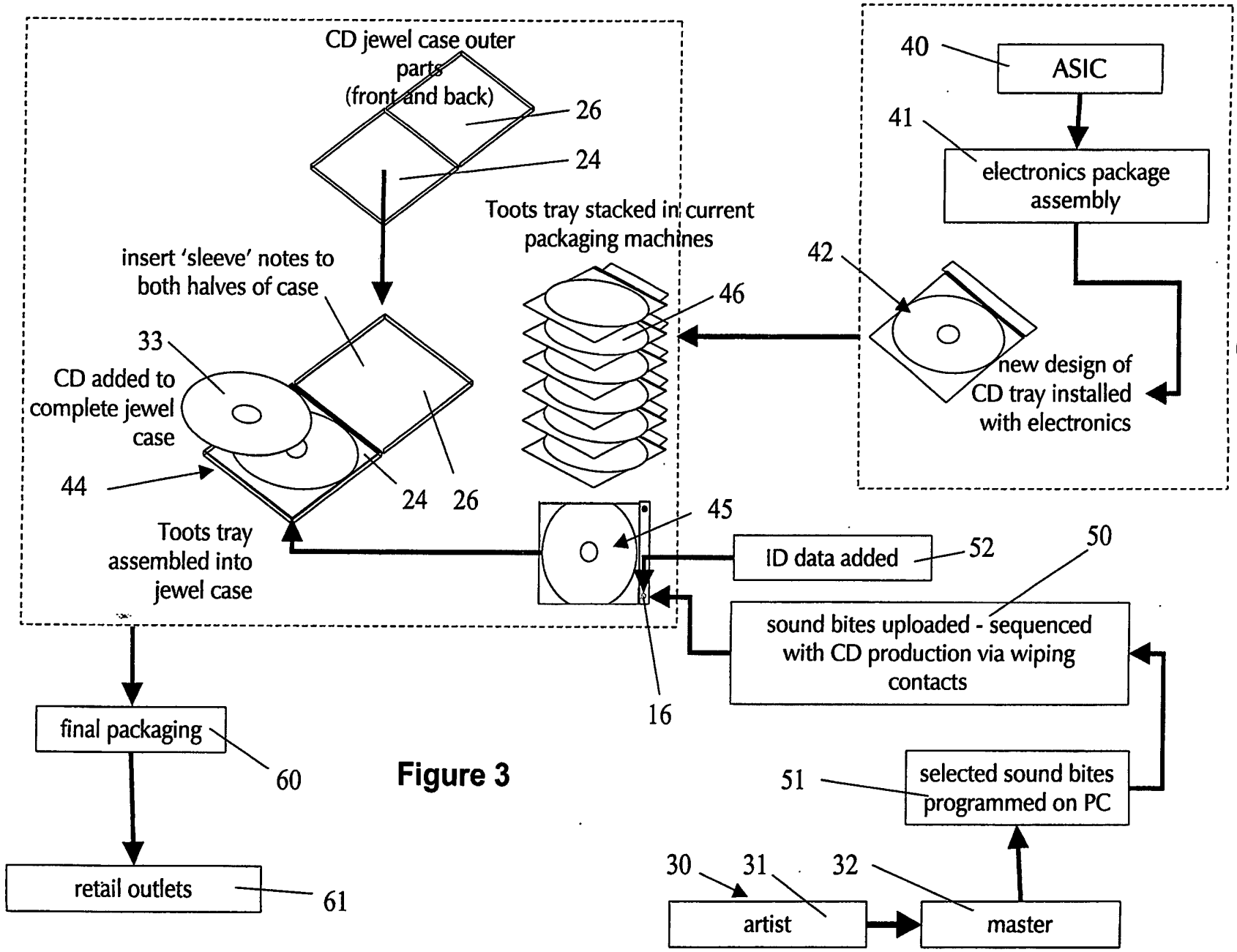
CD jewel case outer parts (front and back)
26
24
Toots tray stacked in current packaging machines
insert 'sleeve' notes to both halves of case
33
CD added to complete jewel case
44
24
26
46
45
Toots tray assembled into jewel case
40
ASIC
41
electronics package assembly
42
new design of CD tray installed with electronics
ID data added
52
50
sound bites uploaded - sequenced with CD production via wiping contacts
16
final packaging
60
retail outlets
61
51
selected sound bites programmed on PC
30
31
32
artist
master

Figure 3

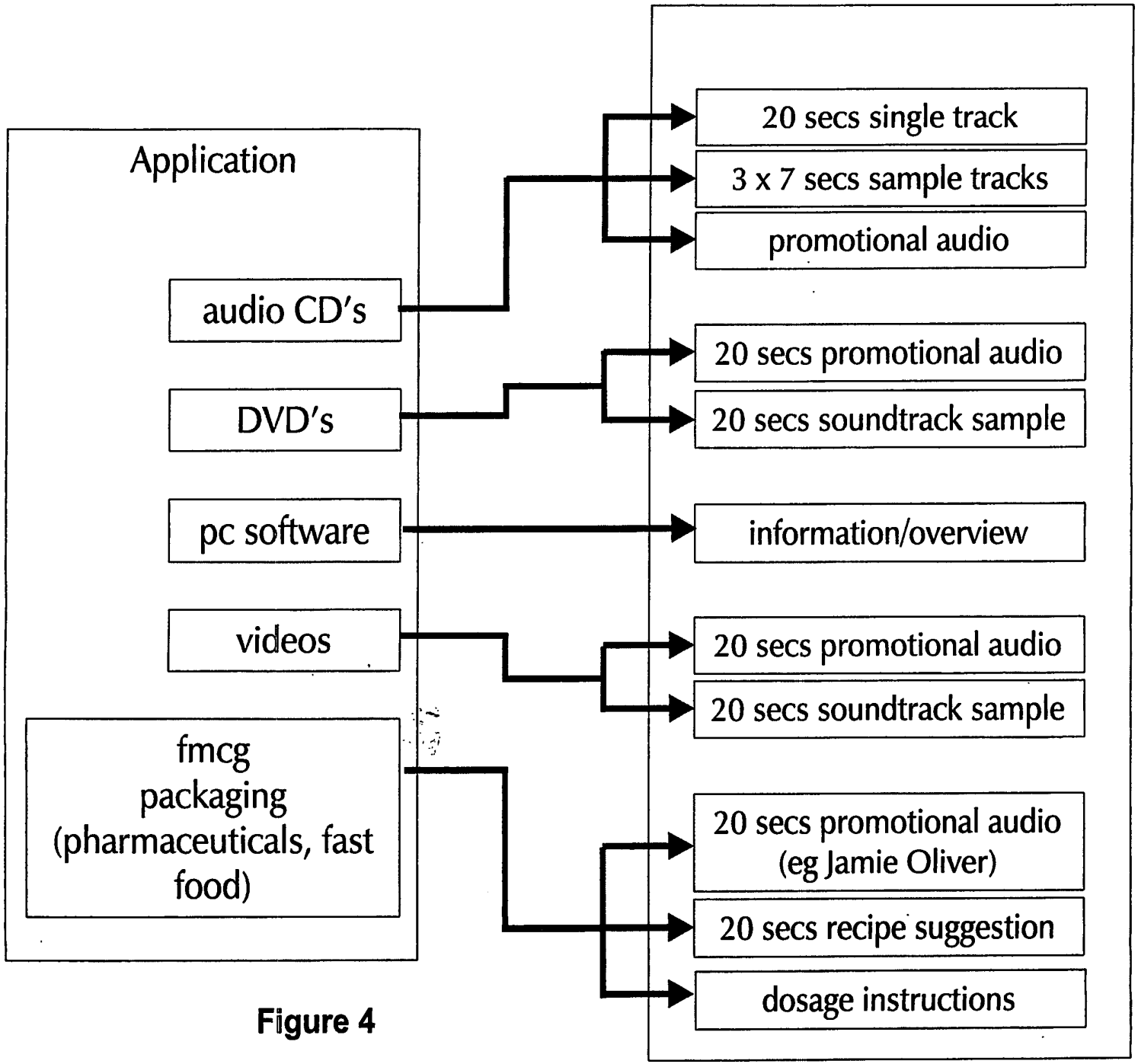
Application
audio CD's
DVD's
pc software
videos
fmcg
packaging
(pharmaceuticals, fast
food)
20 secs single track
3 x 7 secs sample tracks
promotional audio
20 secs promotional audio
20 secs soundtrack sample
information/overview
20 secs promotional audio
20 secs soundtrack sample
20 secs promotional audio
(eg Jamie Oliver)
20 secs recipe suggestion
dosage instructions

Figure 4